02-19-04 . 01:51PM FROM-Merchant & Gould

5123329081

T-844 P.007/011 F-152

Date Mailed: FEBRUARY 19, 2004

Sheet I of I

<pre></pre>	FORM 1449* INFORMATION DISCLOSURE STATEMENT	Docket Number: 11613.64USC1	Application Number: 10/660,206			
1	in an application	Applicant: WILD ET AL.				
	(Use several sheets if necessary)	Fiting Date: SEPTEMBER 10, 2003	Group Art Unit: 1648			

		ני	.s. patent documen	TS	·		
EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS		g date Opriate
	5,464,933	11/07/1995	BOLOGNESI ET AL.				
7	5,656,480	08/12/1997	WILD ET AL.				
	2001/0047080 A1	11/29/2001	ROOT ET AL.				
	2003/0082525 A1	05/01/2003	ROOT ET AL				
·		<del> </del>		<del>-</del>	l.	<u> </u>	
				<del> </del>		<del></del>	
,							
		<u> </u>		<u> </u>		L	
		FOR	EIGN PATENT DOCUM	ENTS			
	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANS	LATION
						YES	NO
<del></del>	ļ ————	<del> </del> -		<del> </del>	<u> </u>		<u>}</u>
	<del> </del>	<del> </del>	<u> </u>	<del></del>	ļ		<del> </del>
	<u> </u>	<del> </del>	<u> </u>	<del> </del>			<del>                                     </del>
	OTHER	DOCIMENT	S (Including Author, Title, I	Data Bersinana 1	Pages Http:/	L	<u> </u>
1	T		Search Report dated Februar		rages, rac.)		
<u> </u>	Copy of a		States repost dated Peolog	17 10, 2007	<del>_</del>		<del></del>
						<del></del>	· · · · · · · · · · · · · · · · · · ·
							•

23552

EXAMINER .		DATE CONSIDERED	10 16	06		
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line inrough citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.						

\*Substitute Disdosure Statement Form (PTO-1449)

Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Date Mailed: May \_\_\_\_\_\_\_2004

Sheet 1 of 1

INFORMATION DISCLOSURE STATEMENT  IN AN APPLICATION				Docket Number:   Application Number:   11613.64USC1   10/660,206						
				Applic	cant: WILD ET	AL.				
MA O B SOON S	(Use several sheets	if necessary)		Filing	Date: 09/10/20	003 C	Group Ar	1 Unit: 1646	1648	
<b>B</b>	¥									
TRADEMINE P	<u> </u>	11.0	DATENT DOC	IRA ERITE		<del></del>				
EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	JMENT	CLASS	SUBCLA	ASS		G DATE	
						<u> </u>				
			<del>-</del>			-	+	<del></del>	<del></del> -	
	•	<del> </del>			<u> </u>					
		<del> </del>								
	<u> </u>				<u> </u>			_		
	·	1.			·			<del></del>		
		<del>                                     </del>	·		<u> </u>	<u> </u>	$\dashv$			
		-	<del></del>						-	
						<u> </u>				
		<u> </u>				·				
	,									
·		FORE	IGN PATENT DO	CUME	NTS					
	DOCUMENT NO.	DATE	COUNTRY		CLASS SUBC	SUBCLA	ss	TRANS	LATION	
								YES	NO	
								•••		
			· <del>V</del>						-	
									<del></del> -	
•		†					-+		<del> </del>	
	OTHER	DOCUMENTS (	Including Author	I Title: Da	te. Pertinent F	Pages Etc.)			<u> </u>	
7	Gruber, M	I. et al., "Study of ' lity to Form Syncy	Viral Replication in	HIV-1-	Infected CEM	I T-Cell Sub	clones \ , No. 6,	Which Are R pp. 1139-11	leduced ir 46	
					<del> </del>		-		_	
			<del>.</del>							
			<u> </u>							
	· · · · · · · · · · · · · · · · · · ·			<del></del>	_					
23552 PATENT TRADEMARK OF	RCE									
(AMINER			DATE	CONSI	DERED IO	16 06			<u> </u>	

FORM 1449\*
INFORMATION DISCLOSURE STATEMENT
APR 0 5 2064

IN AN APPLICATION

(Use several sheets if necessary)

APR 0 5 2064

APR 0 5 2064

Applicant: WILD ET AL.

Filing Date: SEPTEMBER 10, 2003

Group Art Unit: 1648

10, 2003

		U	.S. PATENT DOCUME	ITS				
EXAMINER INITIAL	DOCUMENT N	O. DATE	NAME	CLASS	SUBCLASS	1	DATE OPRIATE	
	5,464,933	11/07/1995	Bolognesi et al.					
	5,656,480	08/12/1997	Wild et al.	-				
		FOR	EIGN PATENT DOCUM	IENTS				
	DOCUMENT N	O. DATE	COUNTRY	CLASS	SUBCLASS	TRANS	LATION	
	,,					YES	NO	
1	WO 00/40616	07/13/2000	РСТ					
$\sim$	WO 03/052122	06/26/2003	PCT					
					<u> </u>	<u> </u>		
	ОТ	HER DOCUMENTS	S (Including Author, Title,	Date, Pertinent	Pages, Etc.)			
7		, F. et al., "Virus Env nts", <u>Science</u> , 1094-1	velope Protein of HTLV-II 096 (May 1985)	Represents Ma	jor Target Antigen	for Antibodie	s in AIDS	
	Brod <u>Antil</u>	Brodeur et al., "Mouse-Human Myeloma Partners for the Production of Heterohybridomas", Monoclonal Antibody Production Techniques and Applications, Marcel Dekker, Inc., New York, 33:51-63 (1987)						
	Caffi 17(10	cy et al., "Three-dime 5):4572-4584 (Augus	cnsional solution structure t 17, 1998)	of the 44 kDa ed	ctodomain of SIV g	gp41", <u>EMBO</u>	J.	
	Caffr of HI	ey et al., "Biophysica V-associated Neurol	al Characterization of gp41 ogical Damage and Demen	Aggregates Sug tia", <u>J. Biol. Ch</u>	gests a Model for em., 275(26):1987	the Molecular 7-19882 (June	Mechanism 30, 2000)	
Calderone, T. et al., "High-level Misincorporation of Lysine for Arginine at AGA Codons in a Fusion Protein Expressed in Escherichia coli", J. Mol. Biol., 262:407-412 (Oct. 1996)							Protein	
Cao, J. et al., "Effects of Amino Acid Changes in the Extracellular Domain of the Human Immunodeficiency Virus Type 1 gp41", Journal of Virology, 67(5):2747-2755 (May 1993)						iciency		
			that a prominent cavity in Sci. USA, 95:15613-15617			is an attractive	drug	
Chan et al., "Core Structure of gp41 from the HIV Envelope Glycoprotein", Cell, 89:263-273 (April 18, 1997)							8. 1997)	
Chan et al., "Core Structure of gp41 from the HIV Envelope Glycoprotein", Cell, 89:263-273 (April 18, 1997)							-,,	

	<u> </u>	•	1	1	1	
EXAMINER		DATE CONSIDERED	w	16	06	
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance						

FORM 1449* INFORMATION DISCLOSURE STATEMENT	Docket Number: 11613.64USC1	Application Number: 10/660,206		
IN AN APPLICATION	Applicant: WILD ET AL.			
(Use several sheets if necessary)	Filing Date: SEPTEMBER 10, 2003	Group Art Unit: 1648		

9	>	Chen, C-H., et al., "A Molecular Clasp in the Human Immunodeficiency Virus (HIV) Type 1 TM Protein Determines the anti-HIV Activity of gp41 Derivatives: Implication for Viral Fusion", <u>J. Virol.</u> , 69:3771-3777 (June 1995)
		Clackson et al., "Making antibody fragments using phage display libraries", Nature, 352:624-628 (Aug. 15, 1991)
		Connor, R. et al., "Vpr is Required for Efficient Replication of Human Immunodeficiency Virus Type-1 in Mononuclear Phagocytes", Virology, 206:935-944 (1995)
		Cull, M.G., "Biotinylation of Proteins in Vivo and in Vitro Using Small Peptide Tags", Methods Enzymol., 326:430-400 (2000)
		de Rosny, E. et al., "Peptides Corresponding to the Heptad Repeat Motifs in the Transmembrane Protein (gp41) of Human Immunodeficiency Virus Type 1 Elicit Antibodies to Receptor-Activated Conformations of the Envelope Glycoprotein", <u>Journal of Virology</u> , 75(18):8859-8863 (Sept. 2001)
		Doering, D. et al., "Cysteine Scanning Mutagenesis at 40 of 76 Positions in Villin Headpiece Maps the F-Actin Binding Site and Structural Features of the Domain", <u>Biochemistry</u> , 35:12677-12685 (1996)
		Dong, X. et al., "N- and C-domains of HIV-1 gp41: mutation, structure and functions", <u>Immunology Letters</u> , 75:215-220 (2001)
		Dwyer, J. et al., "The Hydrophobic Pocket Contributes to the Structural Stability of the N-Terminal Coiled Coil of HIV gp41 but Is Not Required for Six-Helix Bundle Formation", <u>Biochemistry</u> , 42:4945-4953 (2003)
		Earl, P. et al., "Epitope Map of Human Immunodeficiency Virus Type 1 gp41 Derived from 47 Monoclonal Antibodies Produced by Immunization with Oligomeric Envelope Protein", <u>J. Virol.</u> , 71:2674-2684 (April 1997)
		Furuta, R. et al., "Capture of an early fusion-active conformation of HIV-1 gp41", Nature Structural Biology, 5(4):276-279 (April 1998)
		Goding, Monoclonal Antibodies: Principles and Practice, Academic Press, 59-103 (1983)
		Golding et al., Aids Res. Hum. Retroviruses, 8:1607-1612 (1992)
		Golding, H. et al., "LFA-1 Adhesion Molecules Are Not Involved in the Early Stages of HIV-1 env-Mediated Cell Membrane Fusion", Aids Research and Human Retroviruses, 8(9):1593-1598 (Sept. 1992)
		Golding, H. et al., "Dissection of Human Immunodeficiency Virus Type 1 Entry with Neutralizing Antibodies to gp41 Fusion Intermediates", <u>Journal of Virology</u> , 76(13):6780-6790 (July 2002)
,	<b>—</b>	He et al., "Peptides Trap the Human Immunodeficiency Virus Type 1 Envelope Glycoprotein Fusion Intermediate at Two Sites", Journal of Virology, 77(3):1666-1671 (Feb. 2003)

			1	1		
EXAMINER		DATE CONSIDERED 10	16	96		
EXAMINER: Initial if eference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.						

FORM 1449* INFORMATION DISCLOSURE STATEMENT	Docket Number: 11613.64USC1	Application Number: 10/660,206		
IN AN APPLICATION	Applicant: WILD ET AL.			
(Use several sheets if necessary)	Filing Date: SEPTEMBER 10, 2003	Group Art Unit: 1648		

5		Holmes et al., "Bacteriophage Display of Chymotrypsin Inhibitor 2", Protein Peptide Letters, 3(6):415-422 (1996)
		Jiang, S. et al., "HIV-1 inhibition by a peptide", Nature, 365:113 (Sept. 9, 1993)
		Jiang, S. et al., "A Conformation-Specific Monoclonal Antibody Reacting with Fusion-Active gp41 from the Human Immunodeficiency Virus Type 1 Envelope Glycoprotein", <u>Journal of Viology</u> , 72(12):10213-10217 (Dec. 1998)
		Jiang, S. et al., "Peptide and Non-peptide HIV Fusion Inhibitors", Current Pharmaceutical Design, 8:563-580 (2002)
	·	Jonak, Z. et al., "A Human Lymphoid Recombinant Cell Line with Functional Human Immunodeficiency Virus Type 1 Envelope", AIDS Research Human Retroviruses, 9(1):23-32 (Jan. 1993)
		Kemble, G. et al., "Intermonomer Disulfide Bonds Impair the Fusion Activity of Influenza Virus Hemagglutinin", J. Virol., 66:4940-4950 (Aug. 1992)
		Kilby, J. et al., "Potent suppression of HIV-1 replication in humans by T-20, a peptide inhibitor of gp41-mediated virus entry", Nature Medicine, 4(11):1302-1307 (Nov. 1998)
		Kohler, G. et al., "Continuous cultures of fused cells secreting antibody of predefined specificity", Nature, 256:495-497 (Aug. 7, 1975)
		Kozbor, D. et al., "A Human Hybrid Myeloma for Production of Human Monoclonal Antibodies", <u>Journal Immunology</u> , 133(6):3001-3005 (Dec. 1984)
		Laue, T. et al., "Analytical Ultracentrifugation in Biochemistry and Polymer Science", Harding, S.E., Rowe, A.J., and Horton, J. C., Eds., Royal Society for Chemistry, Cambridge, United Kingdom, pp. 90-125 (1992)
		Lottenberg, R. et al., "Assay of Coagulation Proteases Using Peptide Chromogenic and Fluorogenic Substrates", Methods in Enzymology, 80:341-361 (1981)
		Louis, J. et al., "Design and Properties of N <sub>CCG</sub> -gp41, a Chimeric gp41 Molecule with Nanomolar HIV Fusion Inhibitory Activity", <u>Journal of Biological Chemistry</u> , 276(31):29485-29489 (2001)
		Louis, J. et al., "Covalent Trimers of the Internal N-terminal Trimeric Coiled-coil of gp41 and Antibodies Directed against them are Potent Inhibitors of HIV Envelope-mediated Cell Fusion", Journal of Biological Chemistry, 278(22):20278-20285 (2003)
		Lu, M. et al., "A trimeric structural domain of the HIV-1 transmembrane glycoprotein", Nature Struct. Biol., 2:1075-1082 (Dec. 1995)
4		Lucic, M. et al., "Secretion in Escherichia coli and phage-display of recombinant insulin-like growth factor binding protein-2, Australia Journal of Biotechnology, 61:95-108 (1998)

	<b>.</b>				
EXAMINER		DATE CONSIDERED	lo	عا	.06
EXAMINER: Initial if earling and not considered. In	erence considered, whether or not citation is in cordude copy of this form for next communication to the	nformance with MPEP 609; te Applicant.	draw	ine th	rough citation if not in conformance

FORM 1449* INFORMATION DISCLOSURE STATEMENT	Docket Number: Application Number: 11613.64USC1 10/660,206			
IN AN APPLICATION	Applicant: WILD ET AL.			
(Use several sheets if necessary)	Filing Date: SEPTEMBER Group Art Unit: 1648 10, 2003			

2	Lusso, P. et al., "Growth of Macrophage-Tropic and Primary Human Immunodeficiency Virus Type I (HIV-I) Isolates in a Unique CD4 <sup>+</sup> T-Cell Clone (PMI): Failure to Downregulate CD4 and to Interfere with Cell-Line-Tropic HIV-1", <u>Journal of Virology</u> , 69(6):3712-3720 (June 1995)
	Marks, J. et al., "By-passing Immunization: Human Antibodies from V-gene Libraries Displayed on Phage", <u>J. Mol. Biol.</u> , 222(3):581-597 (Dec. 5, 1991)
	Mathews, D. et al., "Substrate Phage: Selection of Protease Substrates by Monovalent Phage Display", Science, 26:1113-1117 (1993)
	Micheal, N. et al., "In vitro and in vivo characterization of a recombinant carboxypeptidase G <sub>2</sub> ::anti-CEA scFv fusion protein", <u>Immunotechnology</u> , 2:47-57 (1996)
	Muster, T. et al., "A Conserved Neutralizing Epitope on gp41 of Human Immunodeficiency Virus Type 1", <u>J. Virol.</u> , 67:6642-6647 (Nov. 1993)
	Muster, T. et al., "Cross-Neutralizing Activity against Divergent Human Immunodeficiency Virus Type 1 isolates induced by the gp41 Sequence ELDKWAS", J. Virol., 68:4031-4034 (June 1994)
	Root, M. et al., "Protein Design of an HIV-1 Entry Inhibitor", Science, 291:884-888 (Feb. 2, 2001)
	Sattentau, Q. et al., "Conformational Changes Induced in the Human Immunodeficiency Virus Envelope Glycoprotein by Soluble CD4 Binding", J. Exp. Med., 174:407-415 (Aug. 1991)
	Sattentau, T. et al., "Human Immunodeficiency Virus Type 1 Neutralization is Determined by Epitope Exposure on the gp120 Oligomer", J. Exp. Med., 182:185-196 (July 1995)
	Studier, F. et al., "Use of T7 RNA Polymerase to Direct Expression of Cloned Genes" Methods in Enzymology, 185:60-89 (1990)
·	Tan, K. et al., "Atomic structure of a thermostable subdomain of HIV-1 gp41", Proc. Natl. Acad. Sci. USA, 94:12303-12308 (Nov. 1997)
	Tracy, P. et al., "Platelet Factor Xa Receptor", Methods in Enzymology, 215:329-360 (1992)
	VanCott, T. et al., "Antibodies with Specificity to Native gp120 and Neutralization Activity against Primary Human Immunodeficiency Virus Type 1 isolates Elicited by Immunization with Oligomeric gp160", J. Virol., 71:4319-4330 (June 1997)
	Weiss, C. et al., "Studies of HIV-1 envelope glycoprotein-mediated fusion using a simple fluorescence assay", AIDS, 10:241-246 (1996)
7	Weissenhorn, W. et al., "Atomic structure of the ectodomain from HIV-1 gp41", Nature, 387:426-430 (May 1997)

	<b>\</b>		l	ı
EXAMINER		DATE CONSIDERED 18	16	No
EXAMINER: In	isallif reference considered, whether or not citation is in one	formance with MDED 500; de		Abranah sitatian if anti-

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.

FORM 1449* INFORMATION DISCLOSURE STATEMENT	Docket Number:   Application Number:   11613.64USC1   10/660,206			
IN AN APPLICATION	Applicant: WILD ET AL.			
(Use several sheets if necessary)	Filing Date: SEPTEMBER 10, 2003	Group Art Unit: 1648		

7	Weng, Y. et al., "Mutational Analysis of Residues in the Coiled-Coil Domain of Human Immunodeficiency Virus Type 1 Transmembrane Protein gp41", <u>Journal of Virology</u> , 72(12):9676-9682 (Dec. 1998)
	White, J. et al., "Anti-Peptide Antibodies Detect Steps in a Protein Conformational Change: Low-pH Activation of the Influenza Virus Hemagglutinin", J. Cell Biol., 105:2887-1896 (Dec. 1987)
	Wild, C. et al., "A Synthetic Peptide from HIV-1 gp41 is a Potent Inhibitor of Virus-Mediated Cell-Cell Fusion", AIDS Res. Hum. Retroviruses, 9:1051-1053 (Nov. 1993)
	Wild, C. et al., "The Inhibitory Activity of an HIV Type 1 Peptide Correlates with its Ability to Interact with a Leucine Zipper Structure", AIDS Res. Hum. Retroviruses, 11:323-325 (March 1995)
	Wild, C. et al., "A synthetic peptide inhibitor of human immunodeficiency virus replication: Correlation between solution structure and viral inhibition", <a href="Proc. Natl. Acad. Sci. USA">Proc. Natl. Acad. Sci. USA</a> , 89:10537-10541 (Nov. 1992)
	Wild, C. et al., "Peptides corresponding to a predictive α-helical domain of human immunodeficiency virus type 1 gp41 are potent inhibitors of virus infection", <u>Proc. Natl. Acad. Sci. USA</u> , 91:9770-9774 (Oct. 1994)
	Wild, C. et al., "Propensity for a leucine zipper-like domain of human immunodeficiency virus type 1 gp41 to form oligomers correlates with a role in virus-induced fusion rather than assembly of the glycoprotein complex", <a href="Proc. Natl. Acad. Sci. USA">Proc. Natl. Acad. Sci. USA</a> , 91:12676-12680 (Dec. 1994)
	Wild, C. et al., "A synthetic peptide inhibitor of human immunodeficiency virus replication: Correlation between solution structure and viral inhibition", <a href="Proc. Natl. Acad. Sci. USA">Proc. Natl. Acad. Sci. USA</a> , 89:10537-10541 (Nov. 1992)
	Wingfield, P. et al., "The extracellular domain of immunodeficiency virus gp41 protein: Expression in Escherichia coli, purification, and crystallization", Protein Science, 6:1653-1660 (1997)
	Wung, J. et al., "Selection of phage-displayed superantigen by binding to cell-surface MHC class II", <u>Journal of Immunological Methods</u> , 204(1):33-41 (1997)
	Xu, J-Y et al., "Epitope Mapping of Two Domains of gp41, the Transmembrane Protein of Human Immunodeficiency Virus Type 1, Using Ten Human Monoclonal Antibodies", J. Virol., 65:4832-4838 (Sept. 1991)
	Copy of International Search Report mailed June 6, 2000

23552 PATENT TRADEMARK OFFICE

	<b>\</b>	 			1		
EXAMINER (			DATE CONSIDERED	60	16	06	
					_		

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.